

Export Soybeans

Soybean Grades and Grade Requirements

There are two classes of soybeans: Yellow soybeans and Mixed soybeans. There are no soybean subclasses. The class Yellow soybeans is the class most commonly exported by the U.S. market. Each class is divided into four U.S. numerical grades and U.S. Sample grade.

Special grades are provided to emphasize special qualities or conditions affecting the value of the soybeans. These special grades are a part of the grade designation but do not affect the numerical or Sample grade designation.

U.S. Standards for Soybeans

Grade	Minimum test weight per bushel (pounds)	Maximum limits of -				
		Damaged kernels		Foreign Material (percent)	Splits (percent)	Soybeans of other colors ¹ (percent)
		Heat-damaged kernels (percent)	Total damaged kernels (percent)			
U.S. No. 1	56.0	0.2	2.0	1.0	10.0	1.0
U.S. No. 2	54.0	0.5	3.0	2.0	20.0	2.0
U.S. No. 3	52.0	1.0	5.0	3.0	30.0	5.0
U.S. No. 4	49.0	3.0	8.0	5.0	40.0	10.0
U.S. Sample grade						

U.S. Sample grade shall be soybeans which:

- (a) Do not meet the requirements for U.S. Nos. 1, 2, 3, or 4; or
- (b) Contain 4 or more stones which have an aggregate weight in excess of 0.1 percent of the sample weight, 1 or more pieces of broken glass, 3 or more crotalaria seeds, 2 or more castor beans, 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic foreign substance(s), 10 or more rodent pellets, bird droppings, or an equivalent quantity of other animal filth, 11 or more pieces of animal filth, castor beans, crotalaria seeds, glass, stones, or unknown foreign substance in combination, per 1,000 grams of soybeans; or
- (c) Have a musty, sour, or commercially objectionable foreign odor (except garlic odor); or
- (d) Are heating or otherwise of distinctly low quality.

¹ Does not apply to Mixed soybeans.

Soybeans

Definitions

Test weight (lb/bu) is pounds of grain per Winchester bushel determined by an approved device before the removal of foreign material.

Test weight (kg/hl) is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

Moisture is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

Splits are soybeans with more than one-fourth of the bean removed and which are not damaged.

Damaged kernels are soybeans and pieces of soybeans which are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, heat-damaged, insect-bored, mold-damaged, sprout damaged, stinkbug-stung, or otherwise materially damaged.

Heat-damaged kernels are soybeans and pieces of soybeans which are materially discolored and damaged by heat.

Foreign material is all matter, including soybeans and pieces of soybeans, that will pass readily through an 8/64-inch sieve and all matter other than soybeans remaining on the sieve after sieving.

Soybeans of other colors are soybeans which have green, black, brown, or bicolored seed coats. Before September 9, 1985, this factor was called “brown, black, and/or bicolored soybeans in yellow or green soybeans.”

Mixed soybeans is a combination of classes of soybeans which does not meet the minimum requirements of a the class Yellow soybeans.

Protein and oil percentages in soybeans are determined by an approved near infrared transmittance (NIRT) instrument calibrated to approved methods. Percent protein and oil is reported on a 13 percent moisture basis unless another basis is requested. The level of protein and oil in a sample does not affect the numerical grade.

Table 12. U.S. Soybean Exports: Number of lots and quantity exported by class and grade, 1998-2000

Grade	1998		1999		2000	
	Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
U.S. No. 1	74	1,103,571	101	1,698,092	98	1,761,279
U.S. No. 2	813	17,924,040	890	20,180,870	969	23,150,62
U.S. No. 3	14	205,157	3	26,215	12	120,255
U.S. No. 4	--	--	--	--	1	2,829
U.S. Sample Grade	1	13,086	1	2,878	2	16,001
Not inspected	1	1,271	--	--	1	1,347
All lots	903	19,247,125	995	21,908,055	1,083	25,052,403

Not inspected = These lots were sold without grade designation.

Table 13. Summary of export Soybean quality, 1998-2000

Factor	Grade	Grade Limit	1998				1999				2000			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Test Weight (lb/bu)	U.S. No. 1	56.0	74	56.5	56.0	57.8	101	56.3	56.0	58.6	98	56.6	56.0	58.6
	U.S. No. 2	54.0	813	56.0	54.0	59.3	890	55.9	54.0	58.2	969	55.9	54.0	58.6
	U.S. No. 3	52.0	14	54.6	53.6	55.4	3	54.4	53.7	54.6	12	55.1	53.5	56.3
	U.S. No. 4	49.0	--	--	--	--	--	--	--	--	1	55.5	55.5	55.5
	U.S. Sample Grade	N/A	1	55.6	55.6	55.6	1	55.7	55.7	55.7	2	48.0	47.9	48.2
	All lots	N/A	902	56.0	53.6	59.3	995	55.9	53.7	58.6	1,082	55.9	47.9	58.6
Test Weight (kg/hl)	U.S. No. 1	N/A	74	72.8	72.1	74.5	101	72.5	72.1	75.4	98	72.7	72.1	75.4
	U.S. No. 2	N/A	813	72.0	69.5	76.4	890	72.0	69.5	74.9	969	72.0	69.5	75.4
	U.S. No. 3	N/A	14	70.3	69.0	71.3	3	70.0	69.2	70.2	12	70.9	68.8	72.5
	U.S. No. 4	N/A	--	--	--	--	--	--	--	--	1	71.5	71.5	71.5
	U.S. Sample Grade	N/A	1	71.5	71.5	71.5	1	71.6	71.6	71.6	2	61.8	61.7	62.0
	All lots	N/A	902	72.1	69.0	76.4	995	72.0	69.2	75.4	1,082	72.0	61.7	75.4
Moisture	U.S. No. 1	N/A	74	11.9	10.6	13.7	101	12.1	10.7	13.3	98	11.5	10.0	12.8
	U.S. No. 2	N/A	810	12.3	7.0	14.0	886	12.0	9.8	13.4	969	11.4	9.5	13.5
	U.S. No. 3	N/A	14	11.0	10.6	13.1	3	11.6	11.5	12.0	12	10.8	9.7	12.6
	U.S. No. 4	N/A	--	--	--	--	--	--	--	--	1	11.1	11.1	11.1
	U.S. Sample Grade	N/A	1	12.2	12.2	12.2	1	12.3	12.3	12.3	2	11.4	11.2	11.5
	All lots	N/A	899	12.3	7.0	14.0	991	12.0	9.8	13.4	1,082	11.4	9.5	13.5
Heat-damaged Kernels	U.S. No. 1	0.2	74	0.0	0.0	0.2	101	0.0	0.0	0.1	98	0.0	0.0	0.1
	U.S. No. 2	0.5	813	0.1	0.0	0.5	890	0.1	0.0	0.5	969	0.1	0.0	0.5
	U.S. No. 3	1.0	14	0.0	0.0	0.1	3	0.0	0.0	0.3	12	0.0	0.0	0.1
	U.S. No. 4	3.0	--	--	--	--	--	--	--	--	1	0.0	0.0	0.0
	U.S. Sample Grade	N/A	1	0.1	0.1	0.1	1	0.1	0.1	0.1	2	0.1	0.0	0.1
	All lots	N/A	902	0.1	0.0	0.5	995	0.1	0.0	0.5	1,082	0.1	0.0	0.5
Damaged Kernels (Total)	U.S. No. 1	2.0	74	0.5	0.0	1.1	101	0.6	0.0	0.9	98	0.6	0.0	1.7
	U.S. No. 2	3.0	813	1.1	0.0	2.9	890	1.0	0.0	2.8	969	1.0	0.0	3.0
	U.S. No. 3	5.0	14	0.7	0.3	1.8	3	0.6	0.5	1.8	12	0.7	0.1	2.1
	U.S. No. 4	8.0	--	--	--	--	--	--	--	--	1	0.9	0.9	0.9
	U.S. Sample Grade	N/A	1	3.6	3.6	3.6	1	0.7	0.7	0.7	2	2.2	1.8	2.7
	All lots	N/A	902	1.0	0.0	3.6	995	0.9	0.0	2.8	1,082	1.0	0.0	3.0

continued

Table 13. Summary of export Soybean quality, 1998-2000-Continued

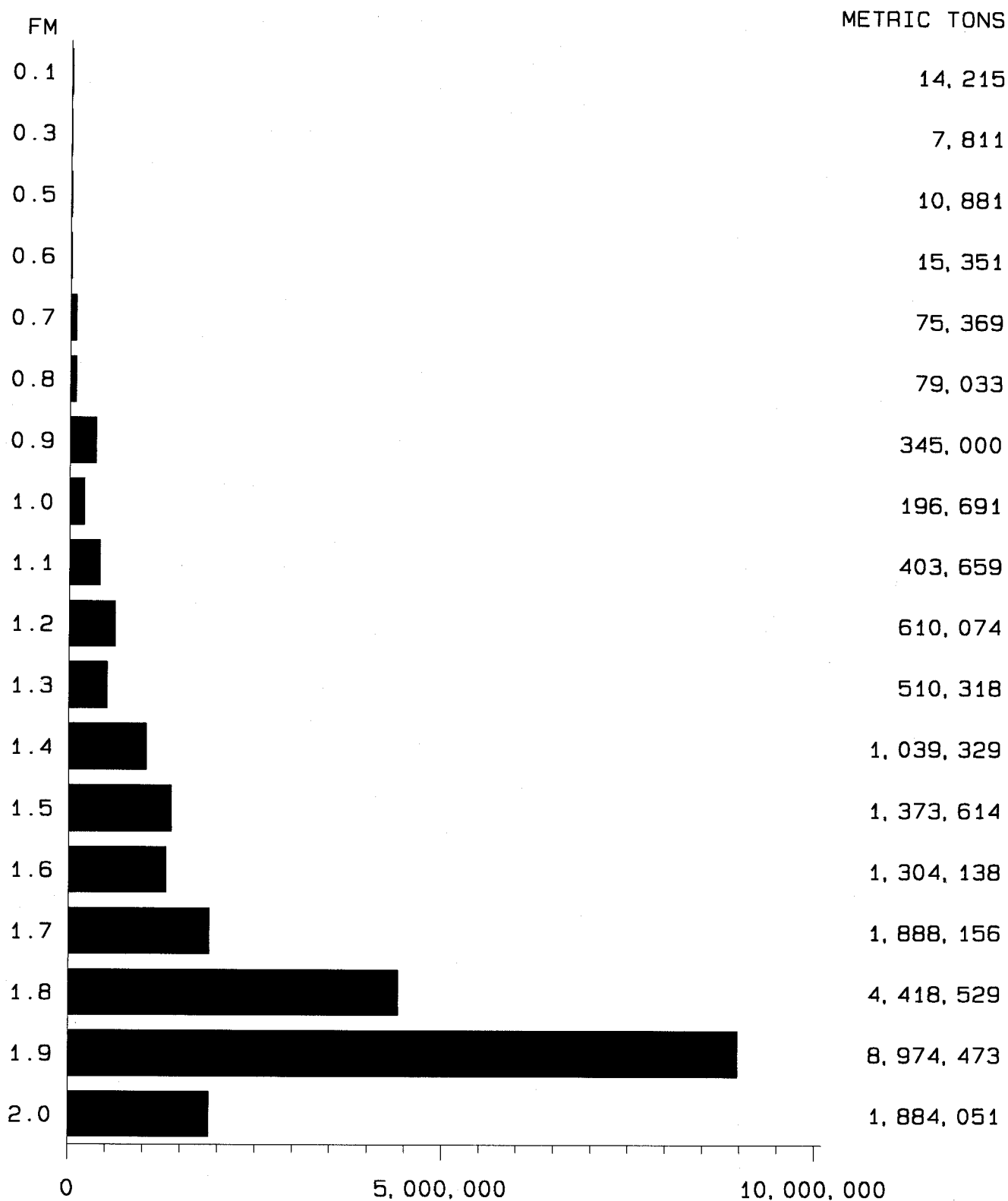
Factor	Grade	Grade Limit	1998				1999				2000			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Foreign Material	U.S. No. 1	1.0	74	0.8	0.1	1.0	101	0.8	0.1	1.0	98	0.8	0.0	1.0
	U.S. No. 2	2.0	813	1.7	0.0	2.0	890	1.7	0.0	2.0	969	1.7	0.1	2.0
	U.S. No. 3	3.0	14	2.0	1.8	2.6	3	1.6	1.0	1.9	12	1.9	1.2	2.6
	U.S. No. 4	5.0	--	--	--	--	--	--	--	--	1	5.0	5.0	5.0
	U.S. Sample Grade	N/A	1	1.9	1.9	1.9	1	0.9	0.9	0.9	2	13.2	2.8	23.6
	All lots	N/A	902	1.6	0.0	2.6	995	1.6	0.0	2.0	1,082	1.7	0.0	23.6
Splits	U.S. No. 1	10.0	74	7.2	0.4	9.5	101	6.9	0.3	9.8	98	7.6	0.3	10.0
	U.S. No. 2	20.0	813	8.4	0.0	19.9	890	8.2	0.0	19.8	969	10.4	0.0	19.3
	U.S. No. 3	30.0	14	22.7	4.9	27.8	3	20.3	16.1	25.4	12	21.5	7.8	28.1
	U.S. No. 4	40.0	--	--	--	--	--	--	--	--	1	15.9	15.9	15.9
	U.S. Sample Grade	N/A	1	4.8	4.8	4.8	1	6.7	6.7	6.7	2	53.4	46.8	60.0
	All lots	N/A	902	8.5	0.0	27.8	995	8.1	0.0	25.4	1,082	10.3	0.0	60.0
Soybeans of Other Colors	U.S. No. 1	1.0	74	0.0	0.0	0.6	101	0.0	0.0	0.5	98	0.1	0.0	0.4
	U.S. No. 2	2.0	813	0.0	0.0	0.7	890	0.0	0.0	0.9	969	0.1	0.0	2.0
	U.S. No. 3	5.0	14	0.1	0.0	0.5	3	0.0	0.0	0.1	12	0.0	0.0	0.1
	U.S. No. 4	10.0	--	--	--	--	--	--	--	--	1	0.1	0.1	0.1
	U.S. Sample Grade	N/A	1	0.0	0.0	0.0	1	0.0	0.0	0.0	2	0.1	0.1	0.1
	All lots	N/A	902	0.0	0.0	0.7	995	0.0	0.0	0.9	1,082	0.1	0.0	2.0
Protein (adjusted to 13% moisture)	U.S. No. 1	N/A	57	35.5	33.9	38.6	82	35.5	34.2	38.8	69	34.9	33.1	39.4
	U.S. No. 2	N/A	522	35.5	33.7	38.2	538	35.3	32.6	37.8	606	35.0	32.9	39.2
	U.S. No. 3	N/A	--	--	--	--	--	--	--	--	3	34.7	34.1	36.5
	U.S. No. 4	N/A	--	--	--	--	--	--	--	--	1	34.4	34.4	34.4
	U.S. Sample Grade	N/A	21	35.6	35.6	35.6	--	--	--	--	2	34.1	34.1	34.1
	All lots	N/A	580	35.5	33.7	38.6	620	35.3	32.6	38.8	681	35.0	32.9	39.4
Oil (adjusted to 13% moisture)	U.S. No. 1	N/A	57	18.6	16.5	19.7	82	18.7	16.3	19.3	68	18.4	15.5	19.7
	U.S. No. 2	N/A	521	18.8	16.9	19.6	540	18.8	17.8	20.2	605	18.5	16.3	20.2
	U.S. No. 3	N/A	--	--	--	--	--	--	--	--	3	18.7	18.6	19.4
	U.S. No. 4	N/A	--	--	--	--	--	--	--	--	1	18.3	18.3	18.3
	U.S. Sample Grade	N/A	1	19.5	19.5	19.5	--	--	--	--	2	17.8	17.3	18.3
	All lots	N/A	579	18.8	16.5	19.7	622	18.8	16.3	20.2	679	18.5	15.5	20.2

N/A=Does not apply.

--=No lots reported in this category.

U.S. SOYBEANS EXPORTED, 2000

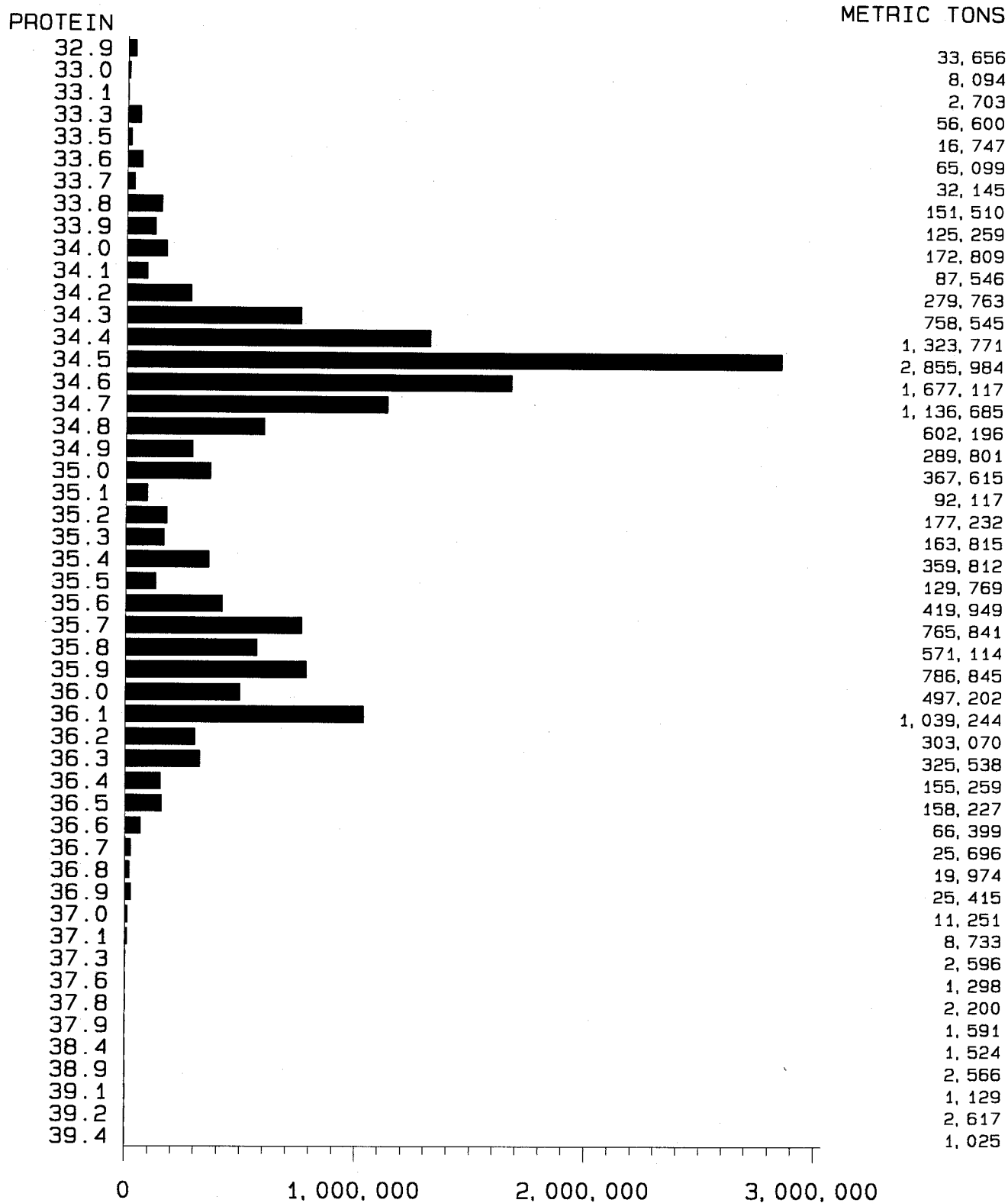
DISTRIBUTION FOR FM – GRADE 2



METRIC TONS

U.S. SOYBEANS EXPORTED, 2000

DISTRIBUTION FOR PROTEIN (13% M) – ALL GRADES



METRIC TONS

U.S. SOYBEANS EXPORTED, 2000

DISTRIBUTION FOR OIL (13% M) – ALL GRADES

